

Edna G. Fernández-Figueroa, Ph.D.

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EDUCATION

- 2021 **Ph.D. Fisheries, Aquaculture and Aquatic Sciences** Auburn University
[Dissertation](#): From drones to *Daphnia*: Exploring eutrophication and climate change impacts on algal blooms at various scales.
Advisor: [Dr. Alan E. Wilson](#)
- 2014 **B.S. Marine Science** Eckerd College
Minor: **Environmental Studies**

RESEARCH & EMPLOYMENT

- 2023- present **Assistant Professor of Environmental Studies** University of Tampa
Current research: Use of unoccupied aerial systems for monitoring fish kill

2012

14. 2022 **Can correlational analyses help determine the drivers of microcystin occurrence in freshwater ecosystems? A meta-analysis of microcystin and associated water quality parameters.**

Buley, R. P., M. F. Gladfelter, E. G. Fernández-Figueroa, and A. E. Wilson. *Environmental Monitoring and Assessment* 194: 493.

<https://doi.org/10.1007/S10661-022-10114-8>.

13. 2022 **Dissolved nitrogen form mediates phycocyanin content in cyanobacteria.**

Gladfelter, M.F., R. P. Buley, A. P. Belfiore, E. G. Fernández-Figueroa, B. L. Gerovac, N. D. Baker, and A. E. Wilson.

Freshwater Biology 67(6): 954-964. <https://doi.org/10.1111/fwb.13892>.

12. 2022 **Local adaptation mediates direct and indirect effects of multiple stressors on consumer fitness.**

Fernández-Figueroa, E. G., and A. E. Wilson

Oecologia 198: 483-492. <https://doi.org/10.1007/s00442-022-05118-7>.

11. 2021 **Commercially available unoccupied aerial systems (UAVs) for monitoring harmful algal blooms: a comparative study.**

Fernández-Figueroa, E. G., A. E. Wilson, and S. R. Rogers. *Limnology and Oceanography: Methods* 20(3): 146-152. <https://doi.org/10.1002/lom3.10477>.

10. 2021 **Zooplankton as an alternative method for controlling phytoplankton in catfish pond aquaculture.**

Belfiore, A., R. P. Buley, E. G. Fernández-Figueroa, M. Gladfelter, and A. E.

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STUDENT MENTORSHIP

Graduate Students

2022-present Kelly Kaye

Graduate Research Project
Auburn University

Undergraduate Students

2022 Callista Macpherson

Warm-Watem

2016 - 2020 Presented on aquatic ecology topics in Alabama correctional facilities through the **Alabama Prison and Arts Project's**

CONTRIBUTED PRESENTATIONS

Oral Presentations

- 2022 **The Green Convergence: United States lakes are collectively moving toward a eutrophic state.**
Fernández-Figueroa, E. G., S. R. Rogers, M. N. Waters, and A. E. Wilson.
Auburn University 2022 Postdoctoral Research Symposium. Auburn, AL.
- 2022 **Commercially available unoccupied aerial systems for monitoring harmful algal blooms: a comparative study.**
Fernández-Figueroa, E. G., S. R. Rogers, and A. E. Wilson.
Joint Aquatic Sciences Meeting. Grand Rapids, MI.
- 2022 **Dissolved nitrogen form mediates phycocyanin content in cyanobacteria.**
Gladfelter, M. F., R. P. Buley, A. P. Belfiore, E. G. Fernández-Figueroa, B. L. Gerovac, N. D. Baker, and A. E. Wilson.

- 2021 **Available dissolved nitrogen form dictates pigment content in cyanobacterial cells.**
Gladfelter, M. F., R. P. Buley, A. P. Belfiore, E. G. Fernández-Figueroa, B. L.

- 2018 **Effects of light, temperature, and carbon source on cyanotoxin and off-flavor compound production.**
Fernández-Figueroa, E. G., and A. E. Wilson.
This Is Research: Student Symposium. Auburn University, AL.
- 2017 **Microcystin and taste and odor compound dynamics in Alabama's surface drinking water sources.**
Fernández-Figueroa, E. G., D. Harrison, W. McClimans, and A. E. Wilson.
Alabama/Mississippi American Water Works Association Conference. Point Clear, AL.
- 2017 **Large effects of consumer offense on ecosystem structure and function: Implications for water resource management.**
Fernández-Figueroa, E. G., A. E. Wilson, M. Chislock, O. Sarnelle, B. Olsen, and E. Doster.
Association of Southeastern Biologists Meeting. Montgomery, AL.
- 2017 **Eutrophication mediates complex interactions between cyanobacteria and diatoms that influence taste and odor events in a drinking water reservoir.**
Fernández-Figueroa, E. G., B. K. Olsen, M. F. Chislock, A. Rebelein, W. Thornton, D. Hilyer, and A. E. Wilson.
ASLO Aquatic Sciences Meeting. Honolulu, HI.
- 2012 **Morphologic changes in *Synechococcus* as a grazing defense mechanism against protist predators.**
Fernández-Figueroa, E. G., S. Strom, and K. Fredrickson.
MIMSUP Student Research Presentation. Anacortes, WA.
- 2012 **Morphologic changes in *Synechococcus* as a grazing defense mechanism against protist predators.**
Fernández-Figueroa, E. G., S. Strom, and K. Fredrickson.
Alaska Department of Fish and Game. Seattle, WA.

Speed Talk with Poster Presentation

- 2019 **Drone imagery for algal bloom monitoring.**
Fernández-Figueroa, E. G., K. Cruz, and A. E. Wilson.
10th US Symposium on Harmful Algae. Orange Beach, AL.

Poster Presentations

2022

- 2022 **Commercially available UAV sensors for monitoring water quality: best practices and collection methods.**
Kaye, K., E. G. Fernández-Figueroa, S. R. Rogers, K. Bagherian, A. E. Wilson, and Y. Bao.
AL Water Resources Conference and Symposium. Orange Beach, AL.
- 2022 **Using unoccupied aerial systems to study mangroves distribution.**
Macpherson, C., E. G. Fernández-Figueroa, and S. R. Rogers.
Auburn University REU Poster Showcase. Auburn University, AL.
- 2020 **Commercially available unoccupied aerial systems for monitoring harmful algal blooms: a comparative study.**
Fernández-Figueroa, E. G., S. R. Rogers, and A. E. Wilson
College of Agriculture Student Showcase. Auburn, AL.
- 2019 **Drone imagery for algal bloom monitoring.**
Fernández-Figueroa, E. G., K. Cruz, and A. E. Wilson.
College of Agriculture Student Showcase. Auburn, AL.
- 2019 **Standardization methods for unmanned aerial vehicle (UAV) monitoring of cyanobacterial blooms.**
Cruz, K., E. G. Fernández-Figueroa, and A. E. Wilson.
Auburn University REU Poster Showcase. Auburn University, AL.

